

Chapter 37

Agricultural Waste and Process Wastewater Irrigation Ordinance

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1. Authority. Pursuant to the authority granted to the Kewaunee County Board of Supervisors under Sections 59.02, 59.03, 59.04 and 59.54(6) of the Wisconsin Statutes and to promote and protect public health, safety, general welfare, and to preserve public peace and good order within Kewaunee County, the Board of Supervisors does hereby enact and ordain this Agricultural Waste and Process Wastewater Irrigation Ordinance.

2. Purpose, Findings and Intent. The intent of this ordinance is to allow for the application of agricultural manure and other waste through the use of a low pressure drip irrigation system to minimize the amount of manure and other waste spread during the spring and fall seasons.

Regulation of irrigation systems for liquid livestock manure is in the best interests of Kewaunee County residents' public health, safety, general welfare and preserves public peace and good order within Kewaunee County.

3. Definitions.

- (1) “*Chemigation*” means the application of pesticides using a chemigation system. (ATCP 29)
 - (2) “*Chemigation system*” means a device or system which mixes pesticides with irrigation water drawn from any source, and which applies the pesticides with the irrigation water. (ATCP 29)
 - (3) “*County*” means Kewaunee County.
 - (4) “*Irrigation Manure Distribution System*” (IMDS) means the application of liquid manure or process wastewater to crop land using equipment that discharges manure via multiple nozzles or hoses through a low pressure system and which disperses the manure or process wastewater. (WI NR243)
 - (5) “*Liquid manure*” means manure with a solids content of less than 12%. (WI NR243)
 - (6) “*Manure*” means a material that consists primarily of litter or excreta, treated or untreated, from livestock, poultry or other animals. Manure includes material mixed with runoff, bedding contaminated with litter or excreta, or process wastewater. (WI NR243)
 - (7) “*Process wastewater*” means wastewater from the production area directly or indirectly used in the operation of animal feeding operation that results from any or all of the following: (WI NR243)
 - (a) Spillage or overflow from animal or poultry watering systems.
 - (b) Washing, cleaning, or flushing pens, barns, manure pits or other animal feeding operation facilities.
 - (c) Direct contact swimming, washing or spray cooling of animals or dust control.
 - (d) Water that comes into contact with any raw materials or animal byproducts including manure, feed, milk, eggs or bedding.
 - (8) “*Reviewable facility or system*” means runoff control structures, feed and other raw materials storage, Irrigation Manure Distribution System, groundwater monitoring systems, manure storage facilities, manure treatment or transfer systems, or other structures or systems associated with the storage, containment, treatment or handling of manure or process wastewater. (WI NR243)
 - (9) “*Setback distance*” means the minimum distance between the wetted perimeter of irrigation and the item or land use in question.
 - (10) “*Wetted perimeter*” means the outer edge of the area receiving liquid manure through irrigation equipment.
 - (11) “*Wind-speed*” means the wind speed shall be determined as a 15-minute mean measurement on the field.
4. Interpretation. In its interpretation and application, the provisions of this Ordinance shall be liberally constructed in favor of Kewaunee County and shall

not be construed to be a limitation or repeal of any other power granted by the Wisconsin Statutes.

5. Abrogation and Greater Restrictions. It is not intended by this Ordinance to repeal, abrogate, annul, impair or interfere with any existing easements, covenants, deed restrictions, agreements, ordinances, rules, regulations or permits previously adopted or issued pursuant to law. However, when this ordinance imposes greater restrictions, the provisions of this ordinance shall govern.
6. Permit Required. No person or entity shall operate an IMDS in Kewaunee County unless such a person or entity shall first obtain a permit for such operation from Kewaunee County.
7. Permit Conditions. The County may impose appropriate conditions upon any IMDS Permit as necessary to protect such residents and the health and safety of other persons living and traveling through the County. Violation of any such conditions imposed by the County shall be deemed a violation of this Ordinance. Conditions may include:
 - (1) Provisions to adapt an IMDS for site conditions including soil, slope, depth to bedrock, crops grown, climate, water quality and water quantity.
 - (2) Provisions for the operation and maintenance.
 - (3) Location of the IMDS and applicable setbacks.
 - (4) Required IMDS components.
 - (5) Operational standards.
8. Permit Application. Persons or entities shall apply for an IMDS permit on an application form approved by the County.
 - (1) Applications shall contain the following information:
 - (a) The name and address of the applicant.
 - (b) The name and address of the owner of the property upon which said system is intended to be operated.
 - (c) The dates or range of dates when such operation is intended to occur.
 - (d) A detailed description of the material intended to be distributed by the system.
 - (e) The legal description and address of the property upon which the system is to be operated or other identifiable description.
 - (f) The manner in which the volume of material to be distributed by the system is intended to be regulated.

- (g) The names and addresses of the owners of all property located within 1,000 feet of the property line of any parcel upon which the proposed IMDS is to be operated. Applicants must provide notice of their application to all owners within 1,000 feet of the property line of any parcel upon which the proposed IMDS is to be operated at the time application is made and provide County an affidavit of mailing or other documentation demonstrating notice was sent.
- (h) Plans and specifications of the IMDS.
- (2) At the time of application, the applicant shall pay to Kewaunee County an application fee per IMDS as determined by the County by resolution.
- (3) The County may request additional information from an applicant as necessary and appropriate for any proposed IMDS.

9. IMDS Standards and Conditions.

- (1) Plan Standards (NRCS WI Code 442). Applicants are required to prepare and submit the following information for the construction and siting of an IMDS:
 - (a) A map or maps showing the location of IMDS, application area, elevations, North arrow and scale.
 - (b) A description of the IMDS:
 - 1. IMDS design.
 - 2. IMDS pressure and flow rate.
 - 3. Sprinkler location, type, nozzle size.
 - 4. Appurtenances location, type, size and installation requirements.
 - (c) A plan of operation that includes:
 - 1. A statement that the applicant will follow all existing state and local laws regarding animal waste and nutrient management.
 - 2. The applicant shall submit and adhere to NRCS CPS 590 Nutrient Management Plan (NMP) and NRCS CPS 449 Irrigation Water Management Plan (IWP).
 - 3. Measures the applicant will take to minimize drift.
 - 4. A statement that the applicant will not exceed manure application limits.
 - 5. Identifies suitable means of supervising/controlling the equipment (e.g., active supervision, automatic sensors/controls, etc.).
 - 6. Identifies the means of determining weather conditions including wind speed, forecasted precipitation and temperature.
 - 7. Identifies a means of preventing contaminated backflow if equipment is connected to water sources.

8. A statement that the applicant will not apply any amount of human waste, septage or other restricted wastes with an IMDS.
 9. A statement the applicant will abide by all relevant setback requirements of this Ordinance and NRCS CPS 590 NMP.
- (d) Specific instructions for operating and maintaining the IMDS to ensure that it functions properly throughout its expected lifespan including:
1. Periodic inspections and prompt repair or emplacement of damaged components.
 2. A pressure switch shall be installed on each IMDS and tested annually to insure proper operation of the IMDS.
 3. Periodic check and removal of debris and sediment as necessary from nozzles to assure proper operation.
 4. Inspection or testing of pipeline and pumping plant components and appurtenances, as applicable.
 5. Regular testing of pressures and flow rates to assure proper operation.
 6. Periodic checks of nozzles and spray heads for proper operation and wear.
 7. Routine maintenance of mechanical components in accordance with the manufacturer's recommendations.
 8. Prior to retrofitting any electrical powered equipment, electrical service shall be disconnected and the absence of stray electrical current verified.
- (2) IMDS Standards (NRCS WI Code 442). IMDS shall conform to the following standards:
- (a) Pressure regulators are required on center pivot and linear move sprinkler outlets if pressure variation at any sprinkler, resulting from elevation difference exceeds 20% of design operating pressure at that sprinkler.
 - (b) Sprinkler irrigation systems will operate as a “low pressure” system between 2-35 pounds per square inch (PSI) as defined by NRCS WI 442.
 - (c) Unless pressure reducers or regulators are installed at each outlet or other pressure compensating or flow control devices are used, lateral lines shall be designed so that pressure variation along the lateral line does not exceed 20% of average design operating pressure.
 - (d) Sprinkler irrigation systems used to apply wastewater shall be designed with sprinkler nozzles of sufficient size to prevent clogging. Drop nozzles are required on the center pivot and lateral move systems. Nozzles and operating pressures shall be selected

- to provide “coarse” or larger droplet sizes (based on ANSI/ASAE classifications).
- (e) Flexible drop tubes on the center pivot and lateral move systems shall be weighted. Drop nozzles on the center pivot and lateral move systems with an average height of 18 inches.
 - (f) An automated control system to ensure maximum operating efficiency of the sprinkler system is required.
- (3) Operational Standards (NRCS WI Code 442, NRCS WI Code 449, Manure Irrigation Workgroup Report, and ATCP 29).
- (a) Comply with all federal, state and local laws, rules, and regulations regarding backflow and anti-siphon prevention measures on the installation and operation of a sprinkler system designed for the purpose of nutrient or wastewater application.
 - (b) Surface waters shall also be protected from direct nutrient, pesticide, or wastewater applications.
 - (c) No IMDS application shall take place in the incorporated areas of Kewaunee County.
 - (d) Drops shall be used on systems that disperse the liquid, on average, no higher than 18” off the ground.
 - (e) No runoff or diffused spray from the system onto neighboring property or public right-of-way.
 - (f) No irrigation of liquid on frozen or snow-covered ground or over DNR designated wetlands.
 - (g) No “big gun” type irrigation systems shall be used.
 - (h) Take appropriate steps to minimize drift.
 - (i) Ensure no overspray of irrigated manure.
 - (j) Have suitable means of supervising/controlling the equipment (e.g., active supervision, automatic sensors/controls, etc.).
 - (k) Have suitable means of determining relevant weather information (to include: wind speed, wind direction, and temperature).
 - (l) Conduct the operation of the IMDS in sustained wind-speeds no greater than 10 mph or wind gusts exceeding 20 mph.
 - (m) Operate a “low pressure” system between 2-35 pounds per square inch (PSI) as defined by NRCS WI 442.
 - (n) Nozzles and operating pressures selected to provide “coarse” or larger droplet sizes (based on ANSI/ASAE classifications).
 - (o) Any use of the IMDS for chemigation shall adhere to all requirements listed in ATCP 29 at the time of permit approval.
- (4) Application Standards. Application practices for operating an IMDS shall adhere to the following standards:

- (a) No mechanical application of manure from an IMDS in 0-2 feet to bedrock.
 - (b) In areas consisting of 2-5 feet to bedrock, apply liquid manure with demonstrated pathogen treatment/reduction to 500,000 CFU/ ml or less.
- (5) Setback Guidelines. Applications from an IMDS shall be set back 500 feet from the wetted perimeter from dwellings, occupied buildings, and property lines for any public recreational area, school or playground.
 - (a) An operator may seek a lesser setback of 250 feet from the wetted perimeter to the above-described restricted features when each of the following conditions is satisfied:
 - 1. The manure has demonstrated pathogen treatment/reduction to 500,000 CFU/ ml; and
 - 2. Written permission is granted to the operator by the building occupant or property owner.
 - (b) An IMDS may be operated at night using the same setbacks as daytime application under the following conditions:
 - 1. Manure is treated or tested under the protocol described in subd. 1. and the wind speed is ≥ 2 mph and ≤ 10 mph; and
 - 2. Wind direction is parallel or away from the restricted features.

10. Record Keeping and Retention Requirements.

- (1) IMDS Operators or Certified Crop Advisors shall provide a manure spreading plan for a Spring-Spring Crop Season in a Nutrient Management Plan, Snap-Plus data file, or a method reviewed and approved by the County. Nutrient Management Plans are due by April 15 each year.
- (2) IMDS Operators shall provide “actual” manure spreading applications with an IMDS to include:
 - (a) Date of application;
 - (b) Total amount of waste spread in gallons;
 - (c) Field number or other approved description;
 - (d) Planned rate;
 - (e) Actual rate; and
 - (f) Source of the manure or other waste.
- (3) Spreading records for all liquid manure applications with an IMDS must be provided to the County as follows:

Season	Applicable Months	Deadline for Record Submittal to County
Fall	September, October, November	January 31
Winter	December, January, February	March 31
Spring	March, April, May	July 31
Summer	June, July, August	October 31

- (4) IMDS Operators shall take one manure or waste sample per season and analysis must be supplied with the spreading reports. Manure sampling procedures shall follow NRCS Wisconsin Conservation Planning Technical Note 1.

11. Enforcement.

- (1) The Kewaunee County Land and Water Conservation Department will administer, monitor and enforce the provisions of this ordinance on behalf of Kewaunee County.
- (2) Any person who operates or causes the operation of an IMDS without first obtaining a lawful permit for such operation under this Ordinance, or operates or causes the operation of such a system in a manner which violates any conditions imposed by Kewaunee County upon any such permit shall be deemed in violation of this Ordinance and upon conviction thereof, shall forfeit not less than \$2,500 nor more than \$10,000 and the cost of prosecution as set by the Wisconsin Statutes for each violation. Each day a violation occurs or continues shall constitute a separate offense. In addition to any other relief, Kewaunee County may nullify any permit issued under this Ordinance and take action to enjoin any future use of an IMDS.

12. Emergency Dispersion of Manure. It is understood that there may be times when liquid manure distribution, due to natural or unforeseen events, needs to be dispersed forthwith. Such things as an inordinate amount of rain or a breach in a manure pit wall may require liquid manure to be dispersed. If such an emergency occurs, it is the responsibility of the owner to obtain Wisconsin Department of Natural Resources (DNR) permission to disperse liquid manure and or the Kewaunee County Land and Water Conservation Department.

13. Severability. If any section, clause, provision or other portion of the Ordinance is adjudged unconstitutional or invalid by a court of competent jurisdiction, the remainder of this Ordinance or Section of which it is a part, shall not be affected

thereby. If any application of this Ordinance to a particular structure or parcel of land is adjudged unconstitutional or invalid by a court of competent jurisdiction, such judgement shall not be applicable to any other structure or parcel of land not specifically included in the court's judgement except as expressly ordered by the court.

14. Effective Date. This Ordinance shall take effect and be in force from and after the day of passage and publication as required by law.